

Operator's Manual

42-inch Snow Thrower Attachment

For 600-series Lawn Tractors

Model OEM-190-627

NOTE: This snow thrower attachment will **NOT fit on all 600-series lawn tractors**. It is NOT designed for and will NOT operate safely or properly on FastAttach™ compatible tractors. Check your tractor's right fender for the FastAttach™ label before attempting to mount this attachment.

NOTE: This snow thrower attachment will **NOT fit on ANY 800-series garden tractors**, regardless of the tractor's FastAttach™ compatibility.

MTD PRODUCTS INC. P.O. BOX 368022 CLEVELAND, OHIO 44136-9722

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FORM NO. 770-10056A
(05/00)

FINDING MODEL NUMBER

This Operator's Manual is an important part of your new snow thrower attachment. It will help you assemble, prepare and maintain the unit for best performance. Please read and understand what it says.



Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. The information on the model plate is very important if you need help from our Customer Support Department or an authorized dealer.

You can locate the model number by looking on the rear, right portion of the snow thrower impeller housing. A sample model plate is explained below. For future reference, please copy the model number and the serial number of the equipment in the space below.

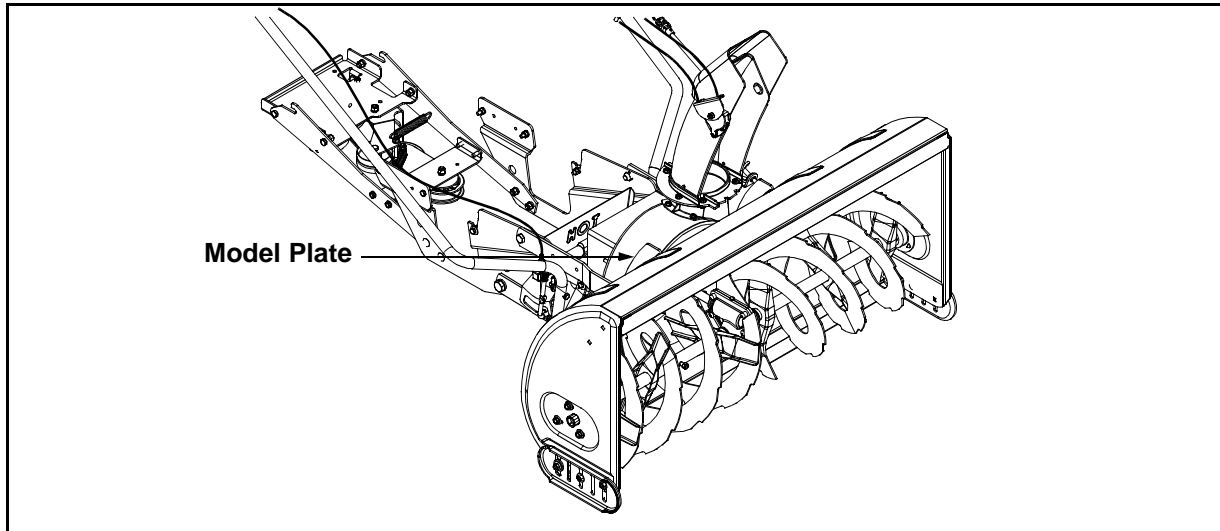



Figure 1

- An example of what the model plate will look like is shown below.

(Model Number)

(Serial Number)

 MTD PRODUCTS INC
CLEVELAND, OHIO 44136

Copy the model number here: _____

Copy the serial number here: _____

CALLING CUSTOMER SUPPORT

If you have difficulty assembling this product or have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.



Call 1- (330) 220-4MTD (4683) or 1- (800)-800-7310 to reach a Customer Support representative. Please have your unit's model number and serial number ready when you call. See previous section to locate this information. You will be asked to enter the serial number in order to process your call.

- Although both numbers are important, you will be asked to enter only your **serial** number before your call can be processed.

For more details about your unit, visit our website at www.mtdproducts.com

SECTION 1: IMPORTANT SAFE OPERATION PRACTICES



WARNING: This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol—**heed its warning.**



WARNING: Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to State of California to cause cancer and birth defects or other reproductive harm.



DANGER: This machine was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

TRAINING

1. Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
3. Never allow children under 14 years old to operate this machine. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.
4. Never allow adults to operate this machine without proper instruction.
5. Thrown objects can cause serious personal injury. Plan your snow throwing pattern to avoid discharge of material toward roads, bystanders and the like.
6. Keep bystanders, helpers, pets and children at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.
7. Exercise caution while operating tractor with this attachment, especially when traveling in reverse.
6. Never attempt to make any adjustments while engine is running, except where specifically recommended in the operator's manual(s).
7. Let tractor engine and attachment adjust to outdoor temperature before starting to clear snow.
8. To avoid personal injury or property damage use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on yourself or your clothes which can ignite. Wash your skin and change clothes immediately.
 - a. Use only an approved gasoline container.
 - b. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
 - c. Never fuel machine indoors.
 - d. Never remove gas cap or add fuel while the engine is hot or running.
 - e. Allow engine to cool at least two minutes before refueling.
 - f. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to provide space for fuel expansion.
 - g. Replace gasoline cap and tighten securely.
 - h. If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area. Wait 5 minutes before starting the engine.
 - i. Never store the machine or fuel container inside where there is an open flame, spark or pilot light (e.g. furnace, water heater, space heater, clothes dryer etc.).
 - j. Allow machine to cool at least 5 minutes before storing.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all door mats, newspapers, sleds, boards, wires and other foreign objects which could be thrown by the auger/impeller.
2. Always wear safety glasses or eye shields during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
3. Do not operate without wearing adequate winter outer garments. Do not wear jewelry, long scarves or other loose clothing which could become entangled in moving parts. Wear footwear which will improve footing on slippery surfaces.
4. Adjust collector housing height to clear gravel or crushed rock surfaces.
5. Disengage all clutches and shift into neutral before starting the engine.

OPERATION

1. Do not put hands or feet near rotating parts, in the auger/impeller housing or discharge chute. Contact with the rotating parts can amputate hands and feet.
2. Never operate with a missing or damaged discharge chute. Keep all safety devices in place and working.
3. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
4. Do not operate machine while under the influence of alcohol or drugs.

5. Muffler and engine become hot and can cause a burn. Do not touch.
6. Exercise extreme caution when operating on or crossing gravel surfaces. Stay alert for hidden hazards or traffic. Do not carry passengers.
7. Exercise caution when changing direction and while operating on slopes.
8. Plan your snow throwing pattern to avoid discharge towards windows, walls, cars etc. To avoid property damage or personal injury caused by a ricochet.
9. Never direct discharge at children, bystanders and pets or allow anyone in front of the machine.
10. Do not overload machine capacity by attempting to clear snow at too fast of a rate.
11. Never operate this machine without good visibility or light.
12. Disengage power to the auger/impeller when transporting or not in use.
13. Never operate machine at high transport speeds on slippery surfaces. Look down and behind and use care when in reverse.
14. If the machine should start to vibrate abnormally, stop the engine, disengage the power take-off, lower the attachment and set the parking brake. Inspect thoroughly for damage. Repair any damage before starting and operating.
15. Disengage the power take-off, lower attachment, set the parking brake and stop engine before you leave the operating position. Wait until the auger/impeller comes to a complete stop before unclogging the discharge chute, making any adjustments, or inspections.
16. Never put your hand in the discharge or collector openings. Always use a clearing tool to unclog the discharge opening.
17. Use only attachments and accessories approved by the manufacturer (e.g. wheel weights, tire chains, cabs etc.).
18. If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer or telephone 1-800-800-7310 for assistance and the name of your nearest servicing dealer.

MAINTENANCE AND STORAGE

1. Never tamper with safety devices. Check their proper operation regularly.
2. Disengage power take-off, lower the attachment, set the parking brake, stop engine and remove key to prevent unintended starting. Wait until the auger/impeller comes to a complete stop before cleaning, repairing, or inspecting.
3. Check bolts, and screws for proper tightness at frequent intervals to keep the machine in safe working condition. Also, visually inspect machine for any damage.
4. Do not change the engine governor setting or over-speed the engine. The governor controls the maximum safe operating speed of the engine.
5. Snow thrower shave plates and skid shoes are subject to wear and damage. For your safety protection, frequently check all components and replace with original equipment manufacturer's (O.E.M.) parts only. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
6. Check clutch controls periodically to verify they engage and disengage properly and adjust, if necessary. Refer to the PTO and safety interlock system in your tractor's operator's manual for instructions.
7. Maintain or replace safety and instruction labels, as necessary.
8. Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.
9. Prior to storing, run machine a few minutes to clear snow from machine and prevent freeze up of auger/impeller.
10. Never store the machine or fuel container inside where there is an open flame, spark or pilot light such as a water heater, furnace, clothes dryer etc.
11. Always refer to the Operator's Manual for proper instructions on off-season storage.



WARNING — YOUR RESPONSIBILITY:

Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

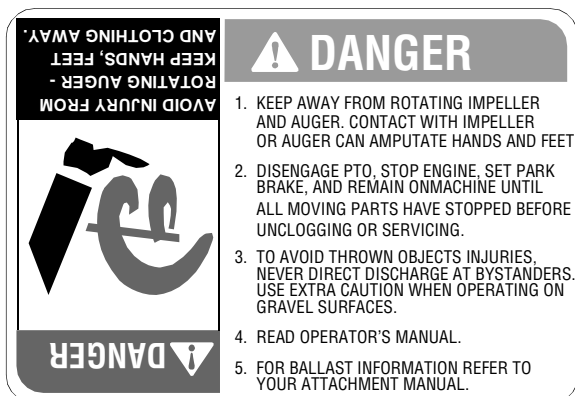


Figure 2 Safety Labels Found on Snow Thrower

SECTION 2: TO THE OWNER

Model 627 42-inch two-stage snow thrower is designed for use on **600-series lawn tractors manufactured in 1996 or later ONLY**. It will NOT fit nor operate properly or safely on ANY other tractor. It will **NOT** fit on any **FastAttach™ compatible tractor**.

NOTE: If your 600-series lawn tractor was manufactured prior to 1996, model 627 snow thrower attachment can be mounted on the tractor with special instructions and minor modifications to the tractor. Phone our Customer Support Department as instructed on page 2 for details.

NOTE: References to **LEFT** and **RIGHT** indicate the left and right sides of the tractor when facing forward in the operator's position. Reference to the **FRONT** indicates the grille end; to the **REAR** the drawbar end.

SECTION 3: CONTENTS OF CARTON

Before beginning installation, remove all parts from the carton to make sure everything is present. Carton contents are listed below and shown in Figure 3. Part numbers are shown in parentheses.

- One Auger Housing Assembly
- One Undercarriage Assembly with Upper V-belt (754-0449) & Lower V-belt (754-0330)
- One Support Carriage Assembly
- One Chute Directional Control with Tilt Lever
- One Lift Handle Assembly with Cable
- One Upper Chute Crank Rod
- Two Self-adhesive Reflectors (730-3000)
- Three Cable Ties (725-0157)
- One Extension Spring (732-0626)
- Two Spare Shear Bolts (710-0890A) & Hex Lock Nuts (712-0429)
- One Flat Washer (736-3019)
- One Hairpin Clip (714-0145)
- Two Hex Screws (710-0376)
- Two Belleville Washers (736-0242)
- Two Lock Washers (736-0119)
- Two Hex Nuts (712-3010)
- Two 1¼-inch Cotter Pins (714-0470)
- One ¾-inch Cotter Pin (714-0507)

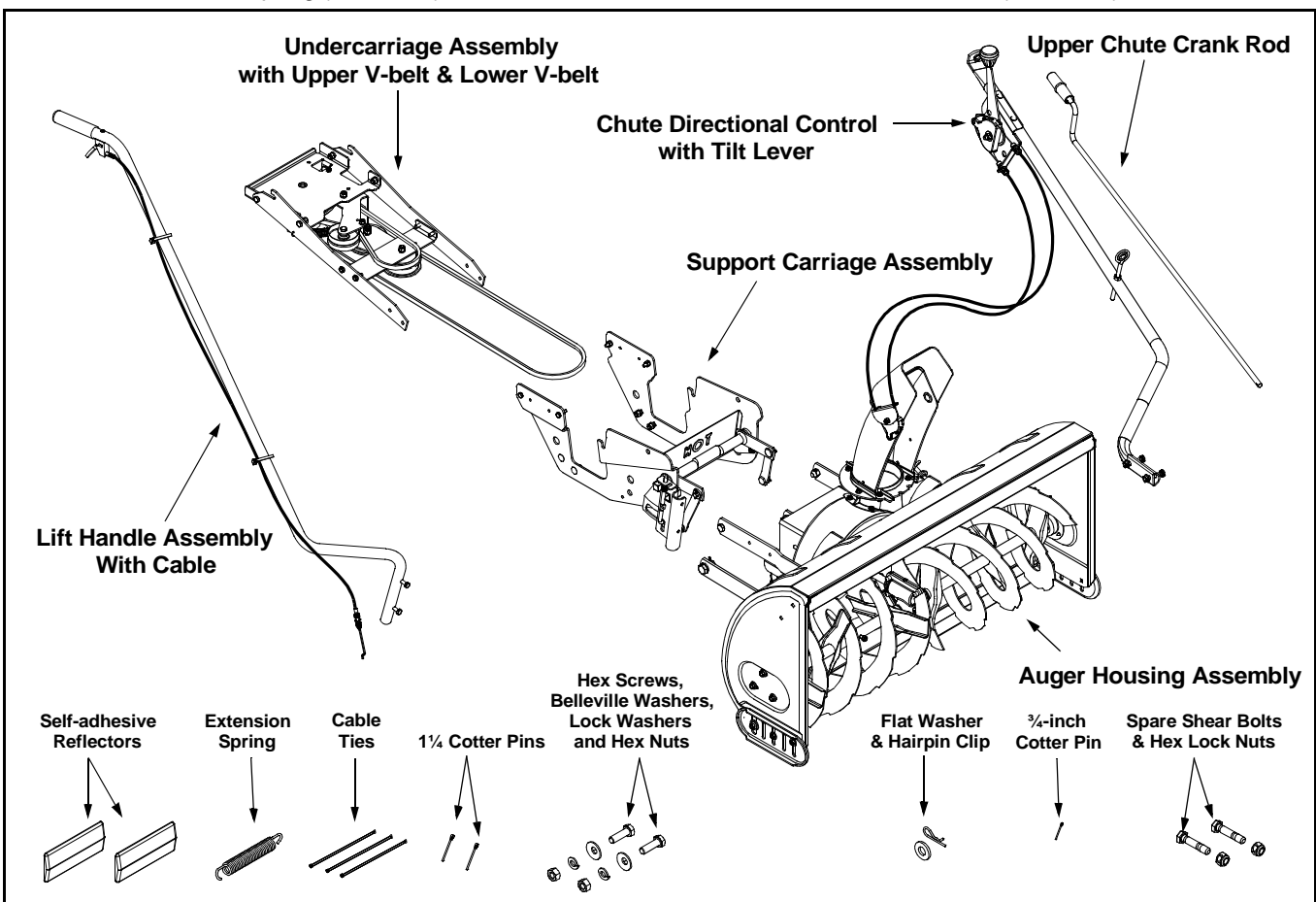


Figure 3

SECTION 4: ASSEMBLY



WARNING: Before installing attachment, place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off and remove key to prevent unintended starting.

NOTE: Your tractor's cutting deck and PTO belt must be removed prior to mounting the snow thrower attachment. Refer to your tractor's Operator's Manual for detailed instructions. Retain all the deck hardware and store it in a safe place. If your tractor is equipped with any front-end accessory such as a front bumper kit, it must also be removed.

NOTE: It is strongly recommended that a second person act as an assistant throughout the assembly of the snow thrower attachment. Having a second person present eases the completion of many of the steps.

Mounting the Support Carriage Assembly

1. Fasten the provided hex screws, belleville washers, lock washers and lock nuts to the tractor's front pivot bracket as illustrated in Figure 4 on both the left side and the right side. Do NOT tighten the hardware at this point in the assembly.
2. Place the tractor's front tires on 2x4s to bring the tractor's front end up a few inches and allow clearance for positioning the support carriage.
3. Remove the hex screws, lock washers and hex nuts from the both sides of the rear of the support carriage assembly.
4. Place the support carriage assembly between the tractor's front tires so that the large notch on both sides of the support carriage straddles the tractor's front pivot bar. See Figure 5.
5. Position the rear of the support carriage so that the holes where the hardware was just removed align with the holes in the tractor's frame rail.

NOTE: Make certain that the support carriage is to the **OUTSIDE** of the frame rail on both sides of the tractor.

6. Reinsert the rearmost hex screw removed in Step 3 through the aligning holes in both the support carriage assembly and the tractor's frame rail. Fasten with the lock washer and hex nut but do not tighten the hardware at this time. See Figure 6.
7. Pivot the front of the support carriage upward until the small grooves found in the front portion of support carriage slide **between** the belleville washers inserted in step 1 and the tractor's front pivot bracket. See Figure 7.

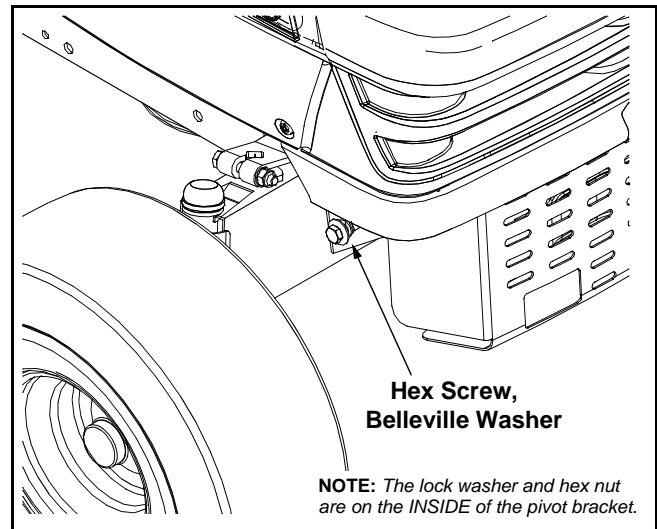


Figure 4

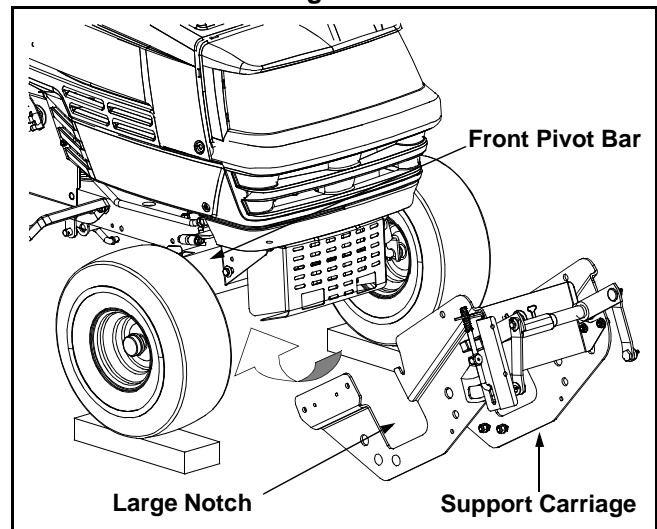


Figure 5

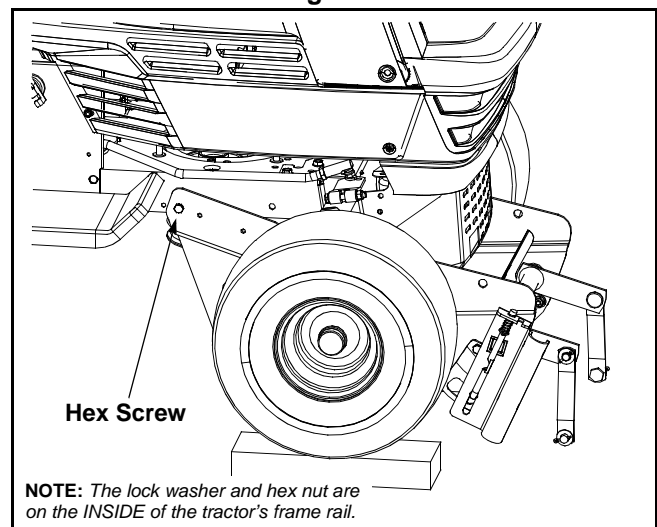


Figure 6

8. Reinsert the remaining hex screws removed in Step 4 through the remaining aligning holes in both the support carriage assembly and the tractor's frame rail (just behind the tractor's front pivot bracket). Securely fasten with the remaining lock washers and hex nuts. See Figure 7.
9. Securely tighten all the other hardware used to mount the support carriage assembly.

Mounting the Undercarriage Assembly

1. Remove the carriage bolts, lock washers and hex nuts from both sides of the front of the undercarriage assembly.
2. Carefully position the undercarriage assembly right-side up beneath the tractor and stretch both belts out toward the front of the tractor to keep them from getting in the way of completing the following steps.

NOTE: The zinc-plated double pulley is located in the **REAR** of the undercarriage assembly.

3. Position the slot found on both the left, rear and the right, rear sides of the undercarriage onto the tractor's running board rod. See Figure 8.
4. Pivot the undercarriage upward allowing the tractor's front lift links to suspend **between** the undercarriage's left side plates and the tractor's frame rails. The tractor's adjustable lift link (an 'L'-shaped rod found on the front, right) will suspend through the opening in the right side of the undercarriage.

NOTE: The rear lift links (See Figure 8) are unaffected by this assembly and not used in any regard by the snow thrower attachment. Both can be ignored.

5. With the undercarriage's side plates positioned to the **inside** of the support carriage mounted earlier, reinsert the carriage bolts removed in step 1 through aligning holes in both the undercarriage assembly and support carriage assembly. See Figure 9.
6. Secure the undercarriage to the support carriage by refastening the lock washers and hex nuts removed in Step 1 to the carriage bolts just inserted.

NOTE: Disregard both the upper drive belt and the lower drive belt at this point in the assembly of the snow thrower. They will both be routed in later steps.

Attaching the Reflectors

1. Peel off the backing from each of the reflectors to expose the adhesive surface.
2. Adhere the reflectors to the rear of the tractor's fender (one on the left and one on the right) so that the reflectors simulate taillights.

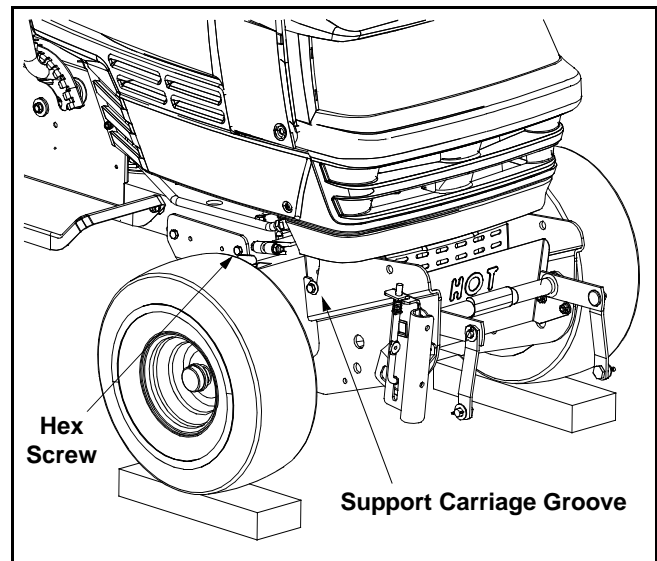


Figure 7

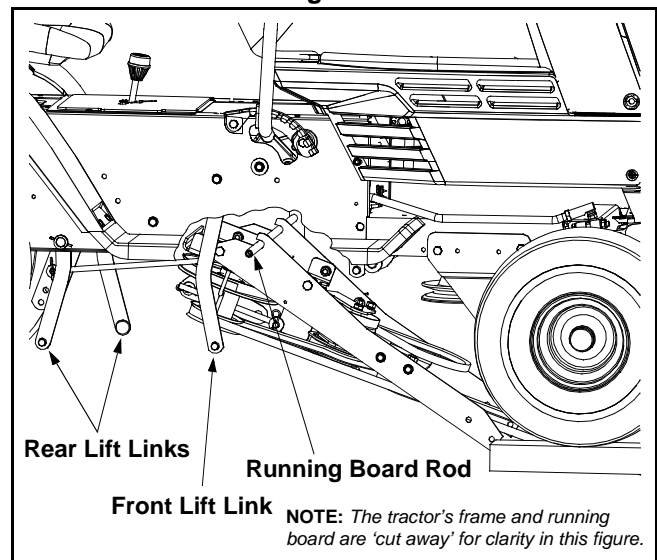


Figure 8

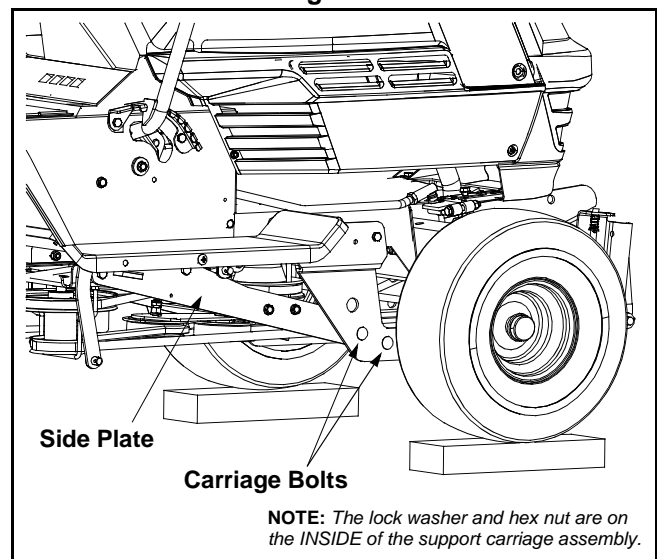


Figure 9

Attaching The Lift Handle

1. Remove the hex screws and flange nuts from the lower portion of the lift handle.
2. Attach the lift handle to the lift bracket found on the right side of the support carriage assembly with the two hex screws and two flange lock nuts just removed. See Figure 10.

Mounting the Auger Housing Assembly

1. Carefully remove the 2x4s placed under the tractor's front tires in Step 2 of **Mounting the Support Carriage Assembly**.
2. Position the auger housing assembly closely in front of the tractor's front-end.

IMPORTANT: Having a second person assist you will **significantly** ease the following steps.

3. Place the 2x4s removed in Step 1 beneath the auger housing assembly's lower lift links, just behind the skid plate. This will cause the housing to tilt slightly forward and ease in completing the following steps.
4. Remove the clevis pin, flat washer and hairpin clip from the lower portion of each **vertical** link on the front of the support carriage assembly. See Figure 10.
5. Align the hole in the lower portion of each **vertical** link with the hole found near the center of each of the auger assembly's **lower** lift links and reinsert the clevis pins just removed through these aligned holes.
6. Secure the **vertical** lift links to the **lower** lift links by fastening with the flat washers and hairpin clips also removed in Step 4. See Figure 11.
7. Remove the hex screws, flat washers and crown nuts from the rear portion of each **lower** lift link.
8. Grasp the auger housing support bar, refer to Figure 11, on the left rear (have a second person grasp the support bar on the right rear) portion of the auger housing and lift upward until the holes found on the rear of the **lower** lift links are aligned with the holes found on both (left & right) sides of the support carriage.
9. Reinsert the hex screws (with one flat washer each) removed in Step 7 through the aligning holes.
10. Secure the **lower** lift links to the support carriage by fastening with the crown nuts and remaining two flat washers removed in Step 8 in addition to the two 1¼-inch cotter pins provided.

IMPORTANT: After inserting, bend the tips of the cotter pins outward to prevent them from backing out of the hex screws.

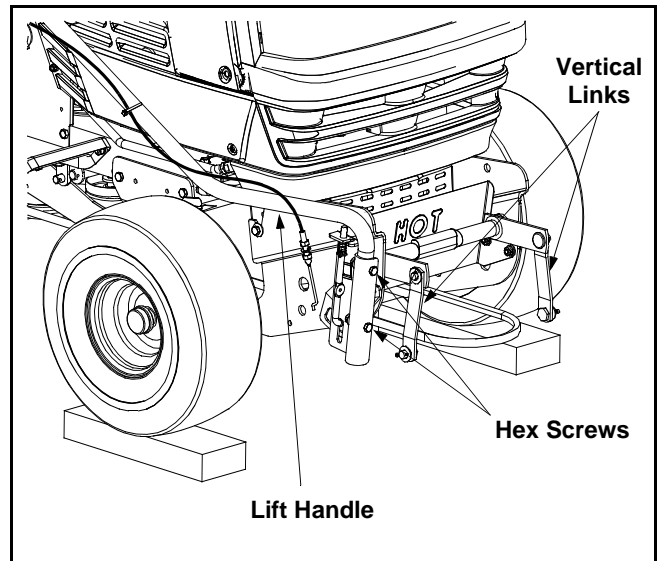


Figure 10

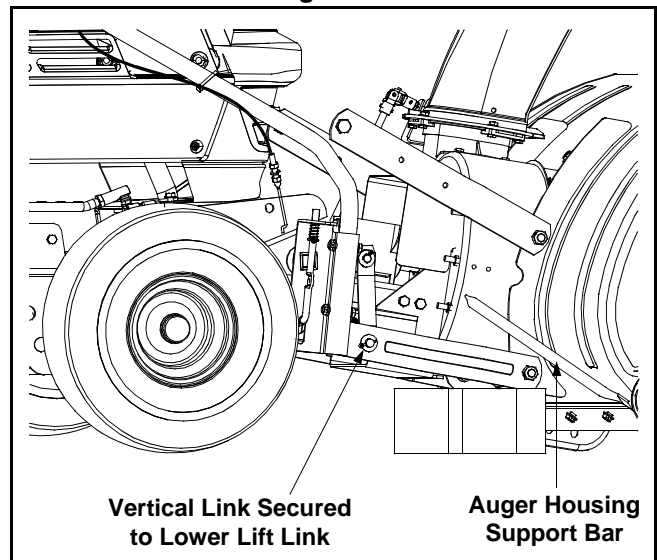


Figure 11

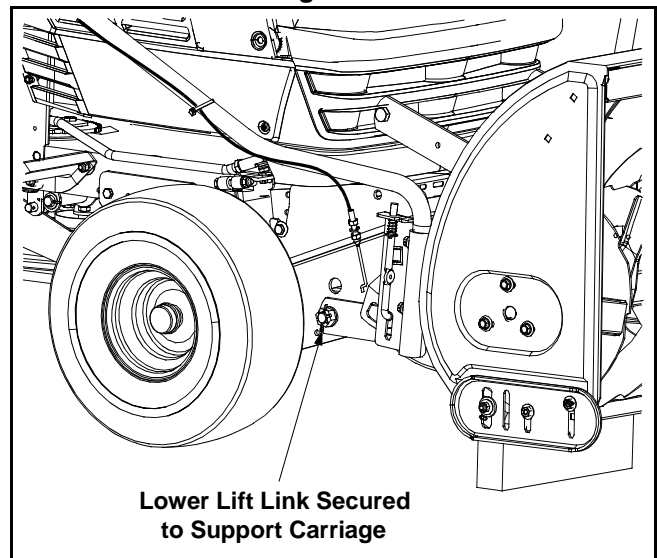


Figure 12

11. Remove the hex screws and hex nuts from the rear portion of each **upper** lift link.
12. Have an assistant grasp the upper portion of the auger housing and pivot the assembly upward until the holes of the upper links align with holes in the front of the support carriage.
13. Reinsert the hex screws removed in Step 11 through the aligning holes and secure the upper lift links to the support carriage by fastening with the hex nuts also removed in Step 12. See Figure 13.

IMPORTANT: Make certain that the hex nut securing the left upper lift link is positioned to the **INSIDE** of link. This will avoid any interference when attaching the chute directional control in following steps.

Attaching the Chute Directional Control

1. Remove the hex screws and flange nuts from the lower portion of the chute directional control.
2. Attach the chute directional control to the upper lift link on the left side of the auger housing assembly with two hex screws and two flange nuts just removed. See Figure 14.
3. Slide the upper chute crank rod through the eyelet in the top of the chute directional control and the eyebolt found midway down.
4. Pivot the lower chute crank rod upward and secure it to the upper chute crank rod with the $\frac{3}{4}$ -inch cotter pin provided. See Figure 14.
5. Fasten the chute tilt cables to the chute directional control with the three cable ties provided. Pull the cable ties until they're snug and trim off any excess.

Routing the Upper Drive Belt

1. Make sure that the "V" side of the upper drive belt is seated firmly in the upper portion of the double pulley found in the rear of the undercarriage assembly.
2. Route the opposite end of the upper drive belt around the engine pulley, to the **INSIDE** of the belt keeper pins found on either side of the engine pulley.
3. Place the tractor's lift lever in the lowest reachable engagement notch.
4. Hook one end of the extension spring provided into the hole on the left side of the undercarriage idler bracket's surface, just to the rear of the belt keeper. See Figure 15
5. Using a pair of vise grips, hook the other end of the extension spring to a hole in the tractor's left frame rail. See Figure 15.



WARNING: Always wear safety glasses or eye shields during operation and while performing an adjustment or repair to protect your eyes.

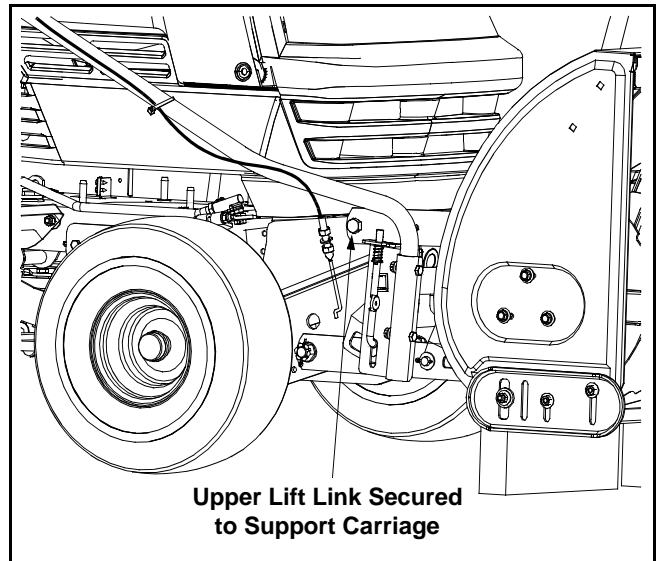


Figure 13

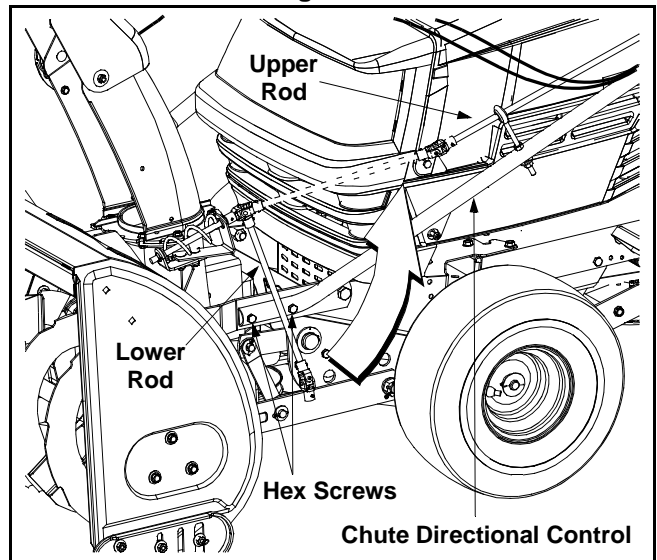


Figure 14

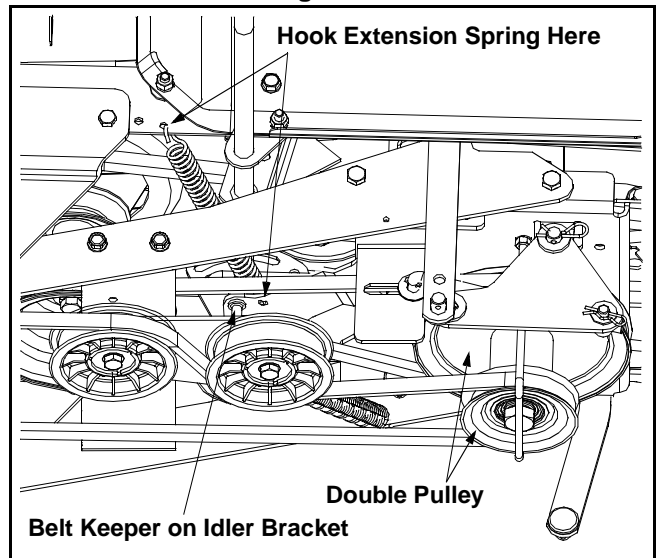


Figure 15

Routing the Lower Drive Belt

1. Loosen, but do NOT remove the flange nut which secures the belt keeper to the drive mounting bracket. See Figure 16.
2. Make sure that the “V” side of the lower drive belt is seated firmly in the lower portion of the double pulley found in the rear of the undercarriage assembly.
3. Route the opposite end of the lower drive belt around the snow thrower’s drive pulley, to the INSIDE of the belt keeper loosened in Step 1.

NOTE: Having a second person carefully pivot the double-idler pulley mounted beneath the undercarriage toward the left side of the tractor will relieve tension on the lower drive belt and ease in routing it around the drive pulley.

4. Retighten the flange nut loosened in Step 1 to secure the belt keeper.

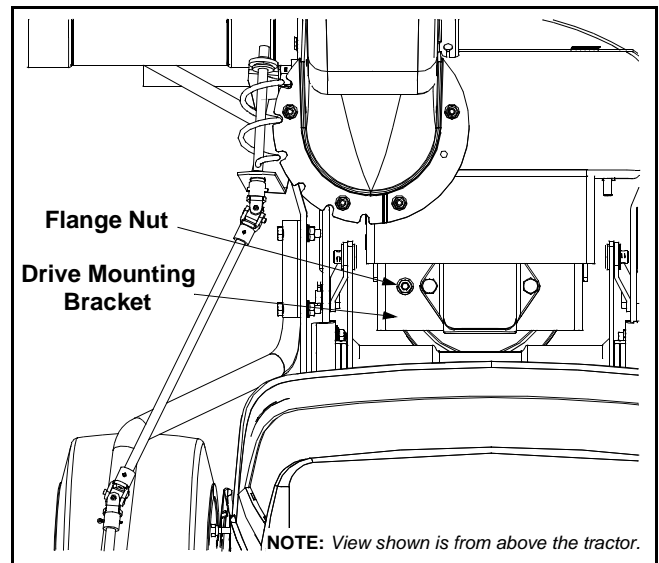


Figure 16

Attaching the Adjustable Lift Link

Power to the snow thrower attachment is engaged and disengaged through the tractor’s adjustable lift link found suspending through the front left area of the undercarriage assembly mounted earlier. To properly attach the adjustable lift link to the undercarriage assembly, proceed as follows:

1. Place the tractor’s lift lever in the lowest reachable engagement notch.
2. Locate the adjustable lift link and thread it upward as far as possible.
3. Insert the end of the tractor’s adjustable lift link through the hole found in the undercarriage’s engagement bracket. See Figure 17 .
4. Secure the adjustable lift link to the engagement bracket with the flat washer and hairpin clip provided.

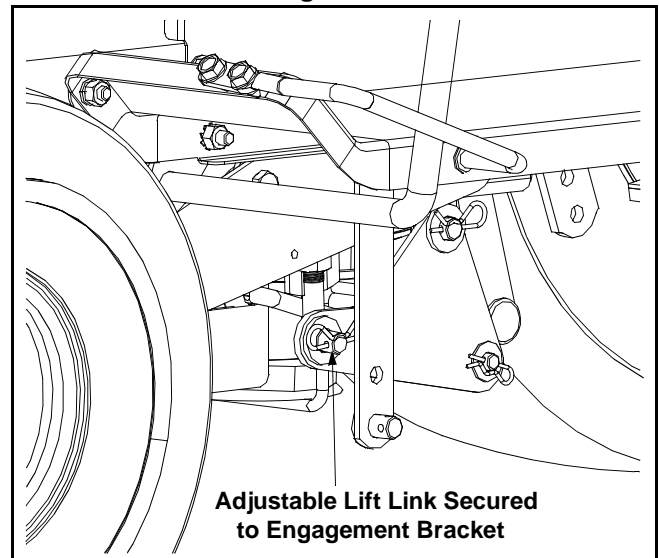


Figure 17

Attaching the Lift Cable

1. Insert the “Z” end of the lift cable into the hole in the lift index rod found on the right side of the support carriage assembly. See Figure 18 .
2. Position the threaded portion of the cable end into the slot found on the lift bracket making certain that one hex nut is above the lip of the bracket and the flat washer and second hex nut are below the lip.
3. Tighten both hex nuts to securely fasten the threaded portion of the lift cable to the lip of the lift bracket.

IMPORTANT: Before operating your snow thrower, refer to the **Lift Adjustment** in **SECTION 7: ADJUSTMENTS** to assure your snow thrower’s lift cable is properly adjusted.

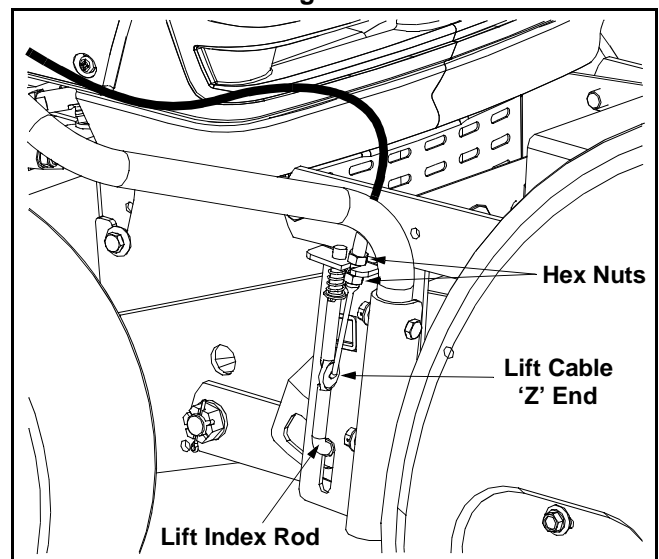


Figure 18

SECTION 5: CONTROLS

Engaging the Augers and Impeller

Power to the snow thrower attachment is activated by lowering the tractor's lift lever and placing it into the lowest notch possible.

- Move the tractor's throttle lever into the FAST (rabbit) position and allow it to remain there for the most efficient use of the snow thrower attachment.
- Move the tractor's lift lever to the right before lowering it and placing it in any of the notches on the index bracket. This will engage the augers and impeller.

NOTE: *The tractor's lift lever cannot be in the engaged (lowered) position when the tractor is driving in the reverse direction. The tractor's lift lever must be in the disengaged (BLADES STOP) position when the shift lever is placed in REVERSE or the tractor's engine will automatically shut off.*

Refer to your tractor's Operator's Manual for more information regarding your tractor's safety interlock system.

Lift Handle

The lift handle is located on the right side of the tractor and is used to raise and lower the snow thrower attachment.

- To raise the snow thrower attachment off of the ground, pull rearward and down on the lift handle until you feel the lift latch on the right side of the snow thrower engage, locking the snow thrower in a raised position.
- To lower the snow thrower, push downward on the lift handle until there is enough slack in the lift cable so that you may squeeze the trigger control. With the trigger control squeezed, gently allow the snow thrower to lower until it reaches the ground.

Chute Directional Control

The chute directional control assembly is found on the left side of the tractor and includes both the chute tilt lever as well as the chute crank. Both affect the direction that the discharged snow is thrown.

- To pivot the upper section of discharge chute, affecting the distance and angle which the snow is thrown, move the chute tilt lever forward or rearward into a desired position.
- The direction which snow is thrown can be changed by rotating the discharge chute with the chute crank. Turn the chute crank clockwise to rotate the chute and discharge snow to the left. Crank it counterclockwise to rotate the chute and discharge snow to the right.

SECTION 6: OPERATION

This snow thrower attachment is capable of displacing snow and clearing a path a width of 42 inches. Observe the following operating instructions for both effective and efficient snow removal.

- Become familiar with and comfortable using all of your tractor's controls as instructed in your tractor's Operator's Manual before operating it with the snow thrower attachment.
- Make certain the correct weight and volume of motor oil in is your tractor's engine as instructed in the engine Owner's Guide packed with the tractor's Operator's Manual.
- Always operate the snow thrower with the tractor's engine at maximum RPM (full throttle).
- NEVER override any safety features on either your tractor or the snow thrower attachment.
- Make certain that all nuts, bolts, and hardware are fastened securely and tight on both the tractor and the snow thrower attachment prior to use.
- Make certain the snow thrower is assembled properly and mounted to the tractor as instructed earlier in this manual.
- Test all the controls (tractor lift lever, snow thrower lift handle, chute tilt lever & chute crank) for smooth operation prior to operating the snow thrower in the snow.
- Make all adjustments (i.e. skid shoes, lift latch) before operating your snow thrower attachment. Follow instructions in **SECTION 7: ADJUSTMENTS** when doing so.
- Engage power to the augers and impeller BEFORE driving the tractor forward and into the snow.
- Keep your tractor's ground speed slow. The slower your tractor is traveling, the more effectively the snow thrower attachment can displace snow.
- Adjust ground speed for snow conditions and become familiar with different snow applications. Your snow thrower attachment will operate differently in wet heavy snow than it will in light, fluffy snow.

- Overlap a previously cleared path when necessary (deep snow) so as not to overload the auger housing with snow.
- NEVER drive the tractor into a snow bank. The snow thrower attachment is NOT a dozer plow. The lift linkage and/or the snow thrower drive system can be damaged as a result of “plowing” with the snow thrower attachment.
- Whenever possible, discharge snow downwind.
- When the tractor (with the snow thrower attachment mounted) is not in use, use the lift lever to lower the auger housing assembly to the ground to relieve strain on the tractor’s front end between uses.
- Do NOT attempt to remove ice or hard-packed frozen snow.
- If the augers become jammed with a chunk of ice or a foreign object, move the tractor’s lift lever into the disengaged (BLADES STOP) position immediately and turn off the tractor’s engine and remove the ignition key. Examine the auger area thoroughly for damage and do NOT operate the snow thrower attachment until any damage is repaired.

IMPORTANT: The augers are secured to the spiral shaft with two shear bolts and hex lock nuts. If you hit a hard foreign object or an ice jam, the snow thrower is designed so that the bolts may shear. Two replacement shear bolts and hex lock nuts are provided for your convenience. Store in a safe place until needed. NEVER replace the auger shear bolts with standard hex bolts. Any damage to the auger gearbox or other components as a result of doing so will NOT be covered by your snow thrower attachment’s warranty.

- Always use tire chains and rear wheel weights on your tractor where extra traction is needed. Refer to the table to the right to determine which kits will fit your tractor (tire dimensions are stamped into the sidewalls of your tractor’s tires).
- Use drift cutters to aid in displacing snow through deep, drifted areas.

NOTE: None of the kits in the table are included as standard equipment with snow thrower attachment OEM-190-627. Call our Customer Support Department as instructed on page 2 of this manual for availability and information regarding these kits.

Tire Size	Tire Chain Kit Number
20" x 10.0"	OEM-190-916
20" x 8.0"	OEM-190-658
18" x 9.5"	OEM-190-657
18" x 8.5"	OEM-190-754
18" x 6.5"	OEM-190-664
	Wheel Weight Kit Number
All Tire Sizes	OEM-190-215
	Drift Cutter Kit Number
	OEM-390-679

SECTION 7: ADJUSTMENTS



WARNING: Never attempt to make any adjustments while the engine is running, except where specified in the Operator’s Manual. Place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off, and remove key to prevent unintended starting

Lift Adjustment

If the lift index rod doesn’t latch securely or the pivot release has too much slack in it, an adjustment can be made as follows:

1. Loosen the upper hex nut a few turns, then tighten the lower hex nut to shorten the cable length. Refer to Figure 18.

2. Loosen the lower hex nut a few turns, then tighten the upper hex nut to lengthen the cable. Refer to Figure 18.

Skid Shoe Adjustment

The space between the shave plate and the ground can be adjusted by repositioning the skid shoes found on either side of the snow throwers auger housing. For close snow removal, place skid shoes in the low position. Use middle or high position when area to be cleared is uneven. See Figure 19.

IMPORTANT: It is NOT recommended that this snow thrower be operated on a gravel surface, as loose stones can be easily picked up and thrown by the machine. If you must operate on a gravel surface, ALWAYS adjust the skid shoes into the HIGH position to allow the shave plate maximum clearance.

Adjust skid shoes as follows:

1. Loosen, but do NOT remove, the three hex nuts which fasten the skid shoe to the auger housing.
2. Raise or lower the skid shoe to desired position.

NOTE: Make certain the entire base of both skid shoes are against the ground to avoid uneven wear on the skid shoes. When one side does wear out, the skid shoes are reversible.

3. Retighten the hex nuts loosened earlier.
4. Repeat this adjustment on the skid shoe found on the opposite side of the snow thrower.

Engagement/Disengagement Adjustment

If the snow thrower's auger and impeller:

- a. Fail to engage when lowering the tractor's lift lever and placing it into the lowest notch possible, or
 - b. Fail to disengage when raising the tractor's lift lever and placing it into the *Blades Stop* notch, perform the following adjustment.
1. Place the tractor's lift lever in the second engagement notch (third notch down).
 2. Locate the control rod found to the inside of the engagement plate on the undercarriage assembly. See Figure 20 .
 3. Remove the hairpin clip and flat washer from the ferrule found at the rear of the control rod. See Figure 20 .
 4. Remove the ferrule from the hole in the engagement plate and slide the control rod as far forward as it will go in the slot in the idler bracket. See Figure 21 .

IMPORTANT: Do not attempt to force the control rod beyond the end of the slot in the idler bracket. The idler bracket is under tension from the spring which secures it to the tractor's frame rail.

5. While holding the control rod forwardmost end of the slot, thread the ferrule inward or outward (whichever is applicable) until it is realigned with the hole.
6. Reinsert the ferrule into the hole and secure it to the engagement plate by fastening with the flat washer and hairpin clip removed in Step 3.

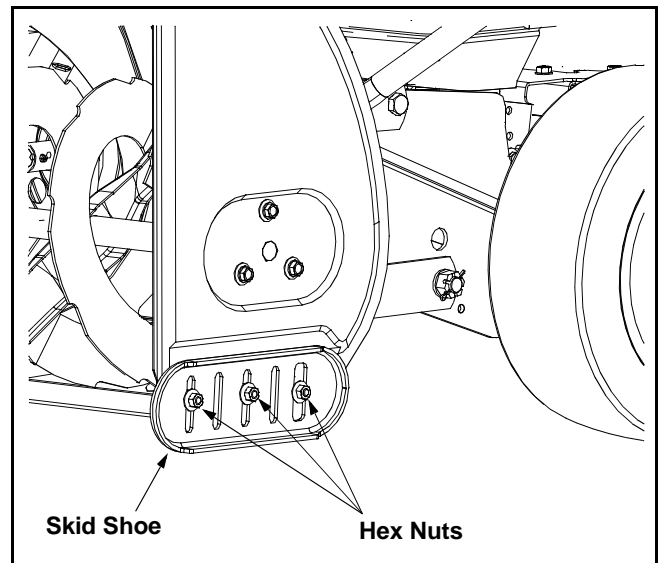


Figure 19

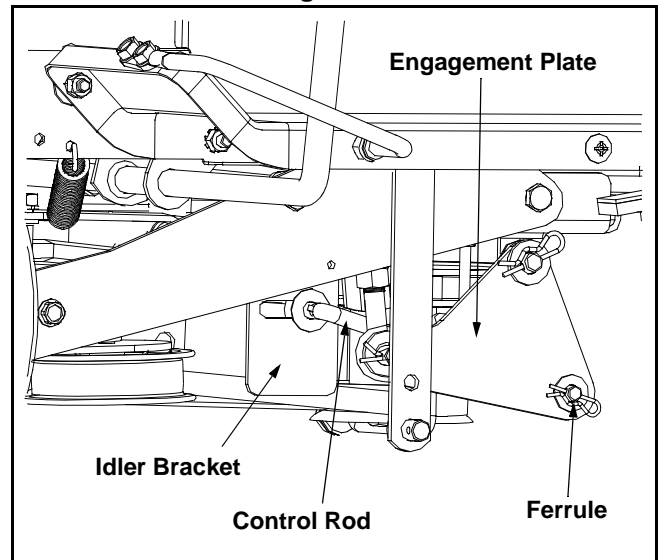


Figure 20

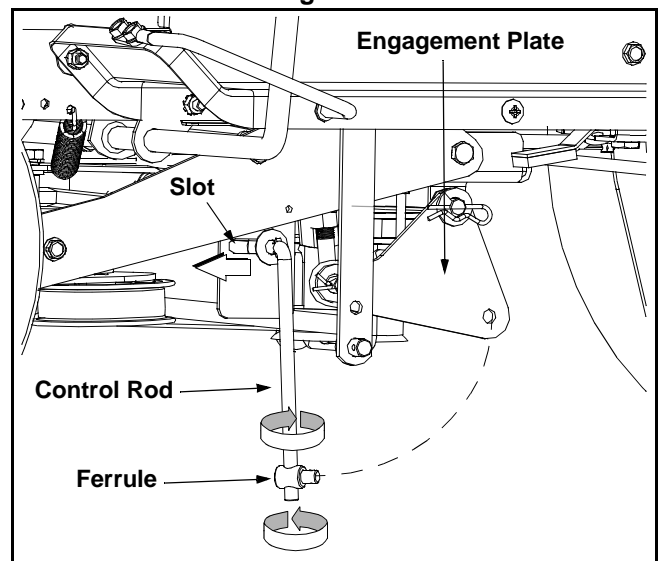


Figure 21

Lower Chute Crank Support Bracket Adjustment

If the spiral at the base of the lower chute crank isn't fully engaging with the notches in the lower chute assembly, the support bracket can be adjusted inward or outward as follows:

1. Loosen, but do NOT remove the two hex nuts which secure the support bracket to the snow thrower housing. See Figure 22.
2. Adjust the support bracket inward or outward so that the spiral is fully engaged in the notches on the chute before retightening the hex nuts.

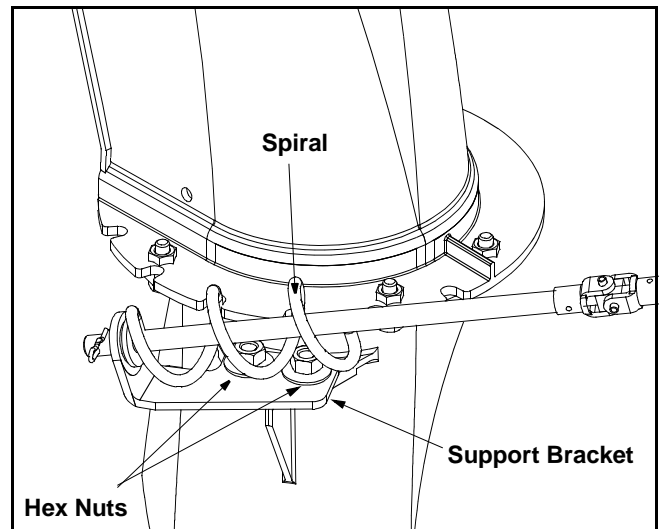


Figure 22

SECTION 8: LUBRICATION

Auger Shaft

- At least once a season, remove the shear bolts on the auger shaft. Oil or spray lubricant inside and on the plastic bearings on the shaft and near the holes where the shear bolts were removed before reattaching them. See Figure 23.

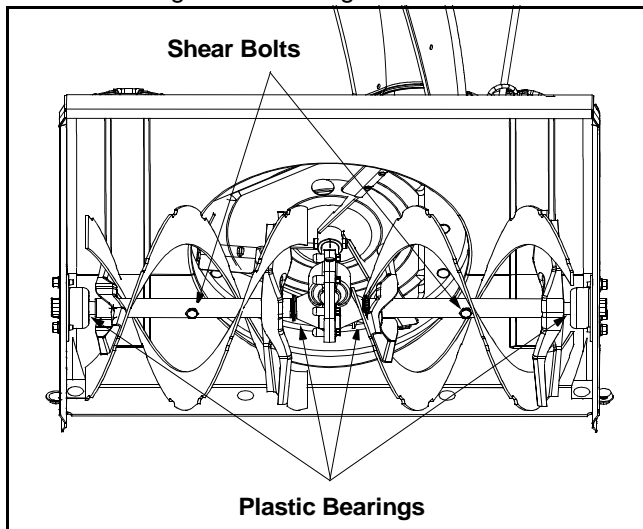


Figure 23

Chute Directional Control

- The spiral on the end of the lower chute crank, the base of the discharge chute itself and the joint blocks which connect the lower and upper chute cranks should be lubed with multi-purpose automotive grease once a season. See Figure 24.

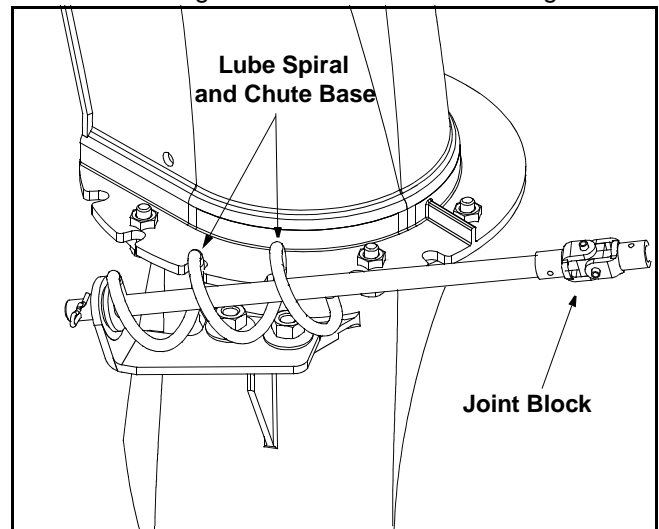
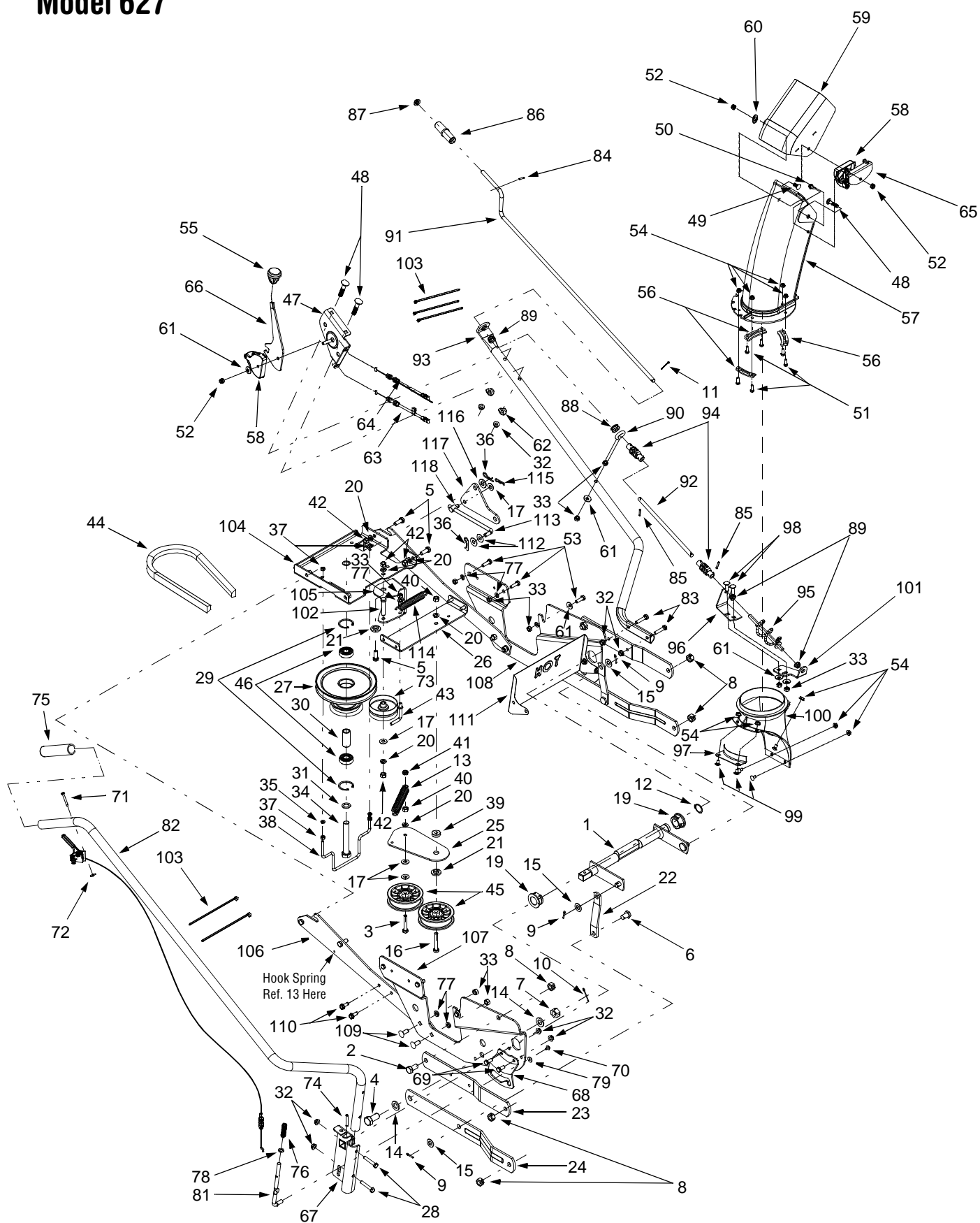


Figure 24

NOTES

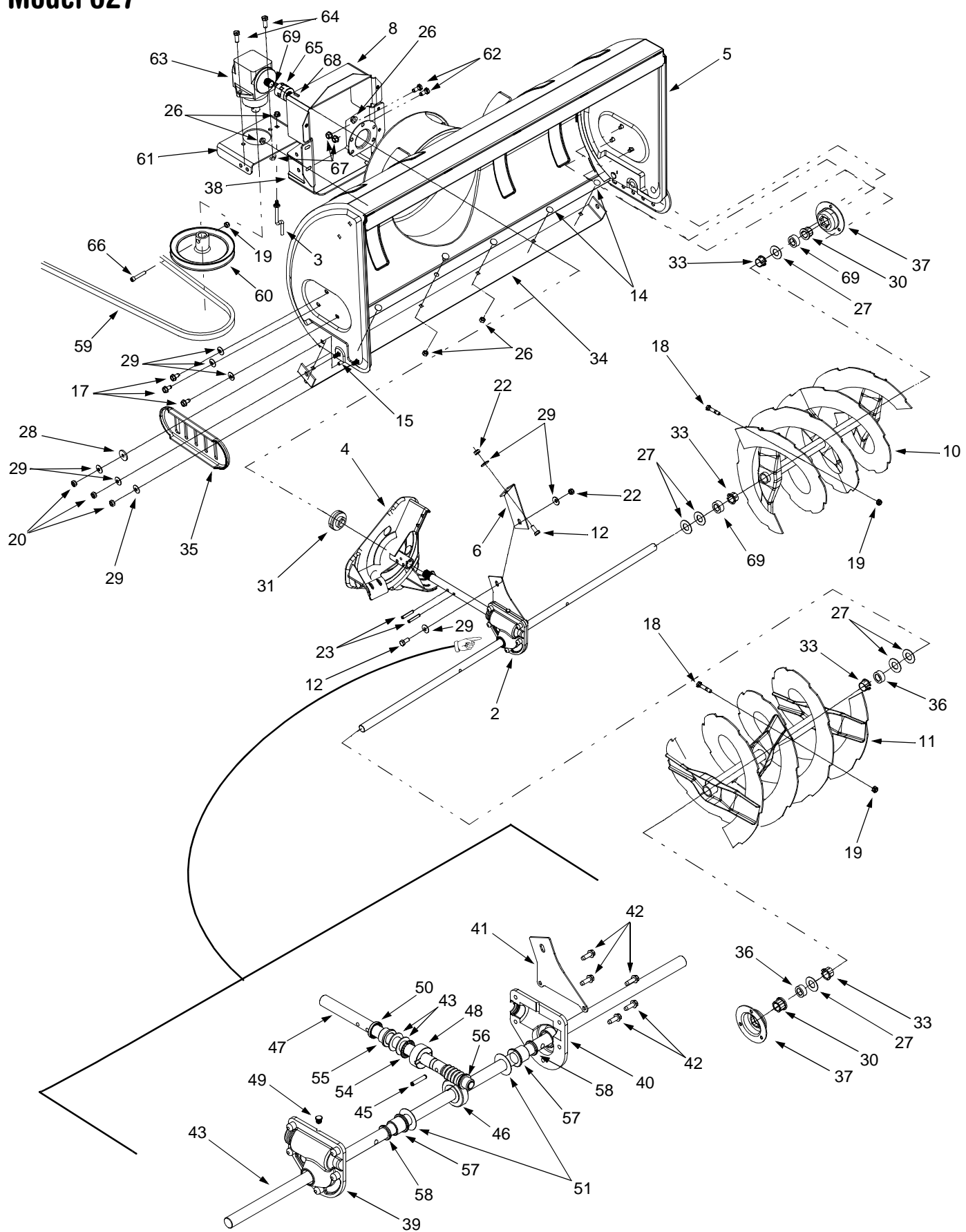
Model 627



Model 627

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	611-0132	Rod Assembly	60	736-0231	Flat Washer, .344 x 1.125 x .125
2	710-3131	Hex Cap Screw, 1/2-13 x 1.0	61	736-0242	Bell Washer, .34 x .872
3	710-0151	Hex Cap Screw, 3/8-24 x 2.0	62	736-0451	Saddle Washer, .32 x .93
4	710-0964A	Hex Cap Screw, 5/8-18 x 1.31	63	746-0929	Chute Cable w/ Clip, 54.5"
5	710-0514	Hex Cap Screw, 3/8-16 x 1.0	64	746-0928	Chute Cable, 54.5"
6	711-0332	Clevis Pin, .5 x .78	65	784-5594	Cable Bracket
7	712-0386A	Slotted Hex Nut, 5/8-18	66	784-5604	Chute Tilt Handle
8	712-3022	Hex Lock Nut, 1/2-13	67	683-0298	Lift Bracket Assembly
9	714-0474	Cotter Pin, .125 x .75	68	703-2728A	Snow Thrower Lift Bracket
10	714-0470	Cotter Pin, 1/8 x 1.25	69	710-3008	Hex Cap Screw, 5/16-18 x .75
11	714-0507	Cotter Pin	70	710-1268	Hex Index Washer Screw #10-16 x .375
12	716-0102	Snap Ring	71	710-3143	Pan Phillips Screw, #10-24 x .75
13	732-0262	Extension Spring	72	712-0127	Flat Weld Nut, #10-24
14	736-0366	Flat Washer, .64 x 1.12 x .125	73	756-0218	Flat Idler Pulley, 3.25
15	736-0272	Flat Washer, .51 x 1.0 x .060	74	715-0114	Heavy Duty Spirol Pin, 1/4 x 1.5
16	710-0331	Hex Cap Screw, 3/8-24 x 2.25	75	720-0274	Handle Grip
17	756-0300	Flat Washer, .406 x .875 x .059	76	732-0306	Compression Spring, .406 x .531 x 1.75
18	738-0234	Shoulder Screw, .5 x .29, 3/8-16	77	736-0119	Lock Washer, 5/16
19	741-0170	Flange Bearing w/ Flats	78	736-0140	Flat Washer, .385 x .62 x .063
20	736-0169	Lock Washer, 3/8	79	736-0400	Flat Washer, .194 x .62 x .063
21	738-0347	Shoulder Spacer, .625 x .169	80	746-3060A	Lift Cable, 42" w/ Trigger Control
22	783-0382	Link, 4.88	81	747-1203	Lift Index Rod
23	783-0878	Link, 13.25	82	750-1028A	Lift Handle Tube
24	783-1263	Link, 17.30	83	710-0805	Hex Cap Screw, 5/16-18 x 1.5
25	784-5727	Idler Pivot Arm	84	715-0138	Rolled Pin, 1/8 x .63
26	784-5728	Idler Support Bracket	85	715-0129	Spirol Pin, .125 x .82
27	756-3080	Double Pulley, 7.0 x 3.5	86	720-0201A	Crank Knob
28	710-3180	Hex Cap Screw, 5/16-18 x 1.75	87	726-0100	Push Cap, 3/8 ID
29	716-3020	Internal Snap Ring	88	735-0234	Rubber Grommet, .44 x .94 x .5
30	750-3164	Spacer, .635 x 2.0	89	741-0475	Plastic Bushing
31	736-0290	Flat Washer, 5/8 x 1.0 x .063	90	747-0697	Eye Bolt
32	712-3004A	Flange Lock Nut, 5/16-18	91	747-0931	Chute Crank Rod, .38 x 28
33	712-3010	Hex Nut, 5/16-18	92	747-0932	Rod, .375 x 11.375
34	710-3151	Hex Cap Screw, 5/8-18 x 4.25	93	750-1054	Support Chute Tube
35	736-0329	Lock Washer, 1/4	94	784-5149	Joint Block Assembly
36	714-0145	Click Pin, .092 x 1.64	95	684-0061	Chute Crank Assembly
37	712-3006	Hex Nut, 1/4-20	96	703-2735A	Chute Crank Bracket
38	747-3250	Belt Guard Rod	97	705-5226	Chute Reinforcer
39	711-0242	Spacer	98	710-0276	Splined Carriage Screw, 5/16-18 x 1.0
40	712-0241	Hex Nut, 3/8-24	99	710-0167	Carriage Screw, 1/4-20 x .5
41	712-0116	Nylon Jam Lock Nut, 3/8-24	100	731-1379A	Adapter Chute
42	712-3017	Hex Nut, 3/8-16	101	784-5647	Chute Crank Bracket
43	747-0871	Belt Keeper Rod	102	710-3144	Hex Cap Screw, 3/8-16 x 2.0
44	754-0449	Upper V-belt	103	725-0157	Cable Tie
45	756-0627	Idler Pulley, 3.5" Diameter	104	683-0133	Pulley Mounting Bracket Assembly
46	741-0524	Sealed Ball Bearing, .625 x 1.574 x .470	105	783-0358A	Idler Bracket
47	603-0302	Chute Tilt Bracket Assembly	106	783-0362A	Mounting Strap Hanger Bracket
48	710-0262	Carriage Bolt, 5/16-18 x 1.5	107	783-0372	RH Side Plate
49	710-0451	Carriage Bolt, 5/16-18 x .75	108	783-0373	LH Side Plate
50	710-0896	Hex Index Washer Screw, 1/4-14 x .625	109	710-3168	Carriage Bolt, 3/8-16 x 1.0
51	710-3015	Hex Cap Screw, 1/4-20 x .75	110	710-0650	Self-tapping Screw, 5/16-18 x .875
52	712-0429	Nylon Hex Lock Nut, 5/16-18	111	783-1274	Heat Shield
53	710-0376	Hex Cap Screw, 5/16-18 x 1.0	112	736-0101	Flat Washer, .406 x 1.0 x .030
54	712-3027	Hex Flange Lock Nut, 1/4-20	113	747-0533	Clutch Adjustment Control Rod
55	720-0232	Knob	114	732-0626	Extension Spring, .75 x 5.06
56	731-0851A	Chute Flange Keeper	115	714-0101	Internal Cotter Pin
57	731-1300A	Lower Chute	116	736-3019	Flat Washer, .531 x 1.062 x .134
58	731-1313C	Chute Tilt Cable Guide	117	783-0359	Idler Engagement Bracket
59	731-1320	Upper Chute	118	711-0198	Ferrule, 3/8-24 x .375

Model 627



Model 627

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	05931	Bearing Housing, 1.85 ID	36	711-0469	Spacer, .75 x .125 x .5
2	618-0407	Auger Gear Case (Incl. Ref. 39-58)	37	784-5618	Hex Bearing Housing, 1.0
3	747-1257	Belt Keeper Rod	38	784-0402	Skid Plate
4	684-0065	Impeller Assembly, 12"	39	618-0123	RH Reducer Housing (Incl. Ref. 57, 58)
5	684-0148	Housing Assembly	40	618-0124	LH Reducer Housing (Incl. Ref. 57, 58)
6	703-2734	Housing Brace Bracket	41	703-2733	Housing Brace Plate
7	703-2735A	Chute Crank Bracket	42	710-0642	Self Tapping Screw, 1/4-20 x .75
8	703-2736	Belt Cover	43	711-1395	Spiral Axle, 41.5"
9	705-5226	Chute Reinforcer	44	714-0161	Hi-Pro Key, 3/16 x 5/8
10	705-5269	LH Spiral Auger, 40"	45	715-0143	Spring Spirol Pin, .25 x 1.25
11	705-5270	RH Spiral Auger, 40"	46	717-0528	Worm Gear, 20-tooth
12	710-0157	Hex Cap Screw, 5/16-24 x .75	47	717-3320	Worm Shaft
13	710-0167	Carriage Screw, 1/4-20 x .5	48	718-0513	Thrust Collar
14	710-0260A	Carriage Bolt, 5/16-18 x .62	49	721-0325	Grease Plug
15	710-0276	Splined Carriage Screw, 5/16-18 x 1.0	50	721-0327	Grease Seal
16	710-0451	Carriage Bolt, 5/16-18 x .75	51	736-0351	Flat Washer, .76 x 1.5 x .030
17	710-0604A	Self Tapping Screw, 5/16-18 x .625	52	736-0369	Flat Washer, .508 x 1.0 x .020
18	710-0890A	Shear Bolt, 5/16-18 x 1.5	53	736-0617	Thrust Washer, .75 x 1.25 x .0615
19	712-0429	Hex Lock Nut, 5/16-18	54	741-0150	Thrust Bearing, .75 x 1.25 x .078
20	712-3010	Hex Nut, 5/16-18	55	741-0700	Flange Bearing, .75 x 1.0 x .59
21	712-3027	Hex Flange Lock Nut, 1/4-20	56	748-0108	Flange Bearing, .503 x .75
22	712-3057	Hex Nut, 5/16-24	57	741-0661	Flange Bearing, .754 x 1.0 x .925
23	715-0114	Spirol Pin, 1/4 x 1-1/2	58	721-0179	Grease Seal
24	715-0129	Spirol Pin, .125 x .812	59	754-0330	Lower V-belt
25	731-1379	Adapter Chute	60	756-1181	Drive Pulley, 7"
26	712-3004A	Flange Lock Nut, 5/16-18	61	783-1014	Drive Mounting Bracket
27	736-0188	Flat Washer, .76 x 1.49 x .06	62	710-0216	Hex Cap Screw, 3/8-16 x .75
28	736-0231	Flat Washer, .344 x 1.125 x .12	63	717-1714	Right Angle Drive
29	736-0242	Bell Washer, .340 x .872	64	710-0514	Hex Cap Screw, 3/8-16 x 1.0
30	741-0245	Hex Flange Bearing, .75 ID	65	718-0691	Coupling
31	741-0309	Flange Ball Bearing, .75 x 1.85	66	710-3251	Socket Head Cap Screw, 5/16-18 x 1.75
32	741-0475	Plastic Bushing, .38	67	712-0431	Flange Lock Nut, 3/8-16
33	741-0493A	Flange Bushing, .80 x .91	68	714-0122	Square Key, 3/16 x .75
34	784-0396	Skid Plate Bracket, 42"	69	714-0126	Hi-pro Key, 3/16 x .75
35	784-5038B	Slide Shoe	70	783-1264	Bearing Housing, 1.85 ID

IMPORTANT: For a proper working machine, use Factory Approved Parts.

V-belts are especially designed to engage and disengage safely. A substitute (non-OEM) V-belt can be dangerous by not disengaging completely.

MANUFACTURER'S LIMITED WARRANTY

The limited warranty set forth below is given by MTD PRODUCTS INC ("MTD") with respect to new merchandise purchased and used in the United States, its possessions and territories.

MTD warrants this product against defects in material and workmanship for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in material or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by MTD Products Inc. for use with the product(s) covered by this manual will void your warranty as to any resulting damages.

Normal wear parts or components thereof are subject to separate terms as follows: All normal wear part or component failures will be covered on the product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear part failures will be covered ONLY IF caused by defects in material or workmanship of OTHER component parts. Normal wear parts and components include, but are not limited to, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates and tires. Batteries are covered by a 90-day limited replacement warranty.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE THROUGH YOUR LOCAL AUTHORIZED SERVICE DEALER. To locate the dealer in your area, please check for a listing in the Yellow Pages or contact the Customer Service Department of MTD PRODUCTS INC by calling 1-800-800-7310 or writing to P.O. Box 368022, Cleveland, Ohio 44136-9722. No product returned directly to the factory will be accepted unless prior written permission has been extended by the Customer Service Department of MTD PRODUCTS INC.

This limited warranty does not provide coverage in the following cases:

- a. The engine or component parts thereof. These items carry a separate manufacturer's warranty. Please refer to the applicable manufacturer's warranty on these items.

- b. Routine maintenance items such as lubricants, filters, blade sharpening and tune-ups, or adjustments such as brake adjustments, clutch adjustments or deck adjustments; and normal deterioration of the exterior finish due to use or exposure.

- c. Log splitter pumps, valves and cylinders have a separate one year warranty.

- d. MTD does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except those sold through MTD's authorized channels of export distribution.

No implied warranty, including any implied warranty of merchantability or fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty or guaranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product shall bind MTD. During the period of the Warranty, the exclusive remedy is repair or replacement of the product as set forth above. (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

The provisions as set forth in this Warranty provide the sole and exclusive remedy arising from the sales. MTD shall not be liable for incidental or consequential loss or damages including, without limitation, expenses incurred for substitute or replacement lawn care services, for transportation or for related expenses, or for rental expenses to temporarily replace a warranted product. (Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.)

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. Alteration of the safety features of the product shall void this Warranty. You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the use or misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser, original lessee or the person for whom it was purchased as a gift.

How State Law Relates to this Warranty: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.